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Rural Development in the Approach Paper

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EDITORIAL - SOME HIGHLIGHTS

I. General Economic Scene

State

Planning Commission

There was a meeting of the Planning Commission in November to review and approve the 1991-92 annual Plan in order to help the preparation of the budget for that year which is expected to be presented to the Legislative Assembly early in 1991. In reviewing the proposals for each sector/department, it was found that the review of the annual Plan provision could not be undertaken without taking into occount the corresponding Non Plan provision for that area. In this state, this distinction between Plan and Non Plan is termed Part II and Part I schemes. There was general approach on this issue, but because of the urgency facing budget making (reflecting the unstable political conditions), the Part II schemes were reviewed and approved with some changes in the provision for Agriculture, Health and Education. But without the total picture, this was an exercise in a kind of blind man's buff.

Weather and Prices

November witnessed a continuation of the good North East monsoon in the state. As noted in the last issue, in the first fortnight, October 7 — November 2, the state and notably Madras city received the rainfall almost for the entire two months season. After a fortnight's let up, which farmers, city and town dwellers most eagerly welcomed to make up for the disruption of their daily occupations, the monsoon resumed from November 24, not with the same intensity. The rainfall varied over the state, particularly over the coastal areas ranging from a day 10 cm (Trivellore) to 3 cm (Madras, Karaikal, Tiruchi), to the point where Madras city's water storage reservoirs are adequate to allow resumption of daily

water supply to city after a 3 year interval Equally the farming areas of Thanjavur and North Arcot and South Arcot have been receiving plentiful rains. This, along side of the good south west monsoon, should ensure a good economic production activity in the state but the curious matter in the state, as at the all India level, is that the inflationary trend has not been dampened. CSO's April 1990 issue shows that all the price indicators are moving up : the consumer price index industrial workers moving up by two points in February 1990, that for agricultural labourers showing a rather steep fall of 19 points (2.5 per cent) in January but rising by 10 points (1.3 per cent) in February, that for urban non employees remaining relatively stable : over a 12 month period, the highest increase is that suffered by rural labour at 9 per cent. Even so the public feel that those index number do not reflect the price increase almost on a weekly or even daily basis taking place : the heavy rains in October sent vegetable prices soaring, the cut in diesel provision since September has pushed up prices of fish, edible oil etc. These are over and above the rise registered in the index. Could these changes be captured by city, town and village wise data, if collected ?

Power

The power situation in the state in November improved due to the good North East monsoon which both helped to bring about increased flows into the hydel reservoirs and which also reduced the peak power demand from the normal 3000 MW to 2600 MW. There was a some short term interruption of power supply due to switching off power in some areas. The other positive element is that the coal scarcity faced by the state's power plants in November was due to the heavy rains which forced a halt in coal loading at the Madras harbour during the 7 days from the end of October to early November. Hence with the break in the monsoon, coal stocks have increased from 1 day stocks to 3-10 days in the Ennore, Mettur and Tuticorin plants. Also with the new agreement signed with Australia on coal supply and imports, the question of the needs of this state's plant, Tuticorin, which is farthest away from the supply source being met at least in part arises. Infact if the coal stock position improves to 1 month stock in the plants, there is the possibility of lifting the 30 per cent power cut on HT users. Also while at the national level, the proposal to amend the Electricity Act to allow the private sector a role in generation has been held up because of the political changes, in the state the government has approved the first 210 MW plant to be operated by G. N. Swamy of Coimbatore. Now the Union should clear this quickly. This project is important not only because it opens the power sector to the private sector in the state but also because on the effectuation of this and other such projects, the industrialisation of the state depends.

At the national level, the two monsoons have brought about some improvement in the power situation, which is a reminder of the dominant influence of the monsoons in all facets of the country's economy — agriculture, fisheries, forestry, irrigation, manufacture, power and domestic comfort. November saw some addition to power generation capacity perspectives in the second unit of the Narora Atomic Power Plant being readied for commissioning and the approval of the 2 mini hydel

projects in Karnataka which in a sense is even more important for the future. A number of power savings and optimising measures are now being considered and executed in view of the scarcity and shortfall in petroleum and crude resources and the certain reduction in the Eighth Plan power allocation due to the resource crunch, as a possible reduction by 80 per cent over the NTPC's request for Rs. 20,000 crores during the plan period. One such is the programme of energy saving which has been launched with a double focus — on dessiminating information on effective utilisation to cut down on wastage and simple means of economising on energy use — through a massive multi media campaign of seminars and demonstration projects in selected industrial subsectors, the use of energy efficient lighting system and the other focus being energy audit with the active participation of trade and industry and for the agricultural modernisation of 8 million pumpsets in stages — at a faster pace than the current one where only 75,000 pumpsets have been modernised. Already FICCI reports that 28 private firms have applied to SEB for entering power sector. Further an important programme is the life extension of 130 power plants whose boilers are 30 years old which are running at about 40 per cent of their capacities of 20,000 MW and which this extension which result in raising their PLF to 60 per cent adding 4000 MW at a cost of Rs. 3200 crores for the boiler extension, whereas new plants to produce the 4000 MW would cost Rs. 16000 crores, besides their long gestation period. Another energy saving devise is commercial power sharing and the formulation of power pools which will cut across countries like India, Nepal, Bangladesh and Pakistan. These steps on energy saving and optimisation are a late attempt by the country to catch up with power saving devices adopted by other countries. Why should we have to wait for the crude short supply and resource crisis to plan and undertake these essential measures — is an issue to be considered seriously.

Water

The positive effects in the state of the plentiful North East monsoon was referred to. The city's three drinking water reservoirs — Red Hills, Poondi and Sholavaram — were the main beneficiary by early November to the point when because of the continuing rains, the decision was made to provide the city with daily water supply till Pongal when the daily-water supply is to be reviewed. Though the total storage in the 3 reservoirs are little over 50 per cent (3610 mcft against 6483 mcft), two of the reservoirs Red Hills and Sholavaram are already full and cannot take any more inflows. There is need for this situation to be examined on a long term and continuing basis so that the catchment areas of the reservoirs are not encroached upon and such encroachments removed and a better storage system for Poondi to be developed. The Telugu Ganga is progressing and its completion in 1993 is essential to meet the full water needs of the city. The rain have also increased the inflows into Mettur, which along with the continuing rains will help the farmers to save the standing samba crop.

Transport

The monsoon has shown up the flimsy and ineffective road works in the

state. All roads have been damaged and are full of pot holes which damage all forms of transport and increase their fuel consumption. The main reason for this poor road surface is attributed to the system of contractors who to make quick money do not use effective granite foundation, but sand and mud papered over by tar. This system needs to be reviewed and a system of identifying reliable contractors should be developed and only they should be used -the others being penalised for their poor workmanship. The crude shortage has led PTC to cut its services by some 20 per cent with a limit of 60 kms speed to conserve fuel. On the question of roads, the emerging road transport research results which show that cement concrete roads are cheaper, with lower operational costs and longer life (of about 40 years) should result in a gradual change over to cement concrete roads as in other developed and some developing countries. Another important transport issue is the urgent need to relieve the over congestion of the Madras Port Trust through development of the satellite port at Ennore. The project report for it has been readied by Rail India Technical and Economic Services (RITES) and the decision now should be made by the union government to implement it and decide whether it should be a mono commodity port, or which will be less costly involving an investment of Rs. 290 crores. But with the petro chemical plants developing at Manali and the growing demand for the quick and early transport of coal into the state's power and industrial plants and the need to carry the higher export of iron ore now agreed with Japan, the case for a multi commodity port is strong and should be given the green light.

Small Savings and welfare Development

Are the people of the state really saving more in small savings — up to September the savings are reported at Rs. 272 crores, giving the state a soft loan entitlement from the Union government of Rs. 147 crores during 1990-91 compared to about a quarter of that at Rs. 41 crores in 1989-90. What are the specific savings incentives which have led to this spurt in small savings and why are Kanyakumari, Dindigul and Periyar doing so well ? As between the incentives, the one per cent cash incentive as against the gift coupon for every Rs. 500 invested, which were the more effective draw ? The state should not be lost in the euphoria of this one time record but analyse its constituents to see how small savings can become a long term growth factor for the state not only for its fixed income earners but also in trade and business community, as an alternative to black income and wealth attractions. The government announcement of re-employing 7000 village officers who were terminated five years ago under the previous government is a step in the right direction, if this programme of village development and use of village officers can be insulated from the political changes that characterise all democratic systems. One question that arises is whether the employment of these officers should not be the responsibility of the local bodies as part of the decentralised planning and administration to which we are committed. The other major welfare measure is that under the 3 lakh houses built under the Tamil Nadu Cooperative Rural Housing schemes, the benefits to the rural owner are being increased. At present out of a total Rs. 10,000 per house, Rs. 7000 is given as loan to

be repaid at Rs. 60 per month and Rs. 1500 as government subsidy and Rs. 1500 as owner's payment. The change is that if the beneficiary repays Rs 30 per cent as 50 per cent of the Rs. 7000 loan (Rs. 3500), the rest being subsidy. This revised liberal scheme is being extended also to the 30,000 houses being built this year. Similarly the TN Milk Producers Association are demanding a subsidy of Rs. 10 crores to compensate milk producers for the increase in the procurement price if the price of milk is not raised. It is important that as these welfare schemes are inaugurated, attention should be given equally to the means of their financement so that resources are not diverted from development to so called welfare services.

National

Plan

Given the various factors internal and external (political changes, the gulf crisis etc), should there be a plan holiday? A plan holiday means that development programmes at the National and state level would be decided on annual ad hoc basis rather than on the basis of a medium term definition of objectives and means of attaining them over that period. At this stage, there will be agreement with the Prime minister that there should be no plan holiday. Second and following from it the Planning Commission should be quickly reconstituted, the Deputy Chairman appointed so that the Plan discussions (both Annual and Eighth Plan) can be considered by mid December and the draft Plan document readied by mid January to guide the National and state budgets for 1991-92. Third, the Plan should be based on the Approach Paper which has been approved by the National Development Council, with its quantitative indications of the overall growth rate, the employment growth rate, the growth rate of savings and the plan size of Rs. 610,000 crores, including a public sector outlay of Rs. 3,25,000 crores. Fourth it is on the resources side that some careful thinking and some hard decisions are needed to realise the resources planned for. Should the proportion between the public sector outlay and that of the private sector which is set at 56 : 44 be changed to increase the private sector's share to nearer 50. The Commission's tentative proposals to reduce from 60 to 54 per cent the public sector share in investment in industry and infrastructure (mining, electricity transport etc), to reduce allocations to medium and large units from Rs. 35,200 crores as to Rs. 23,500 crores, to allocate Rs. 20,750 crores for the union and Rs. 1500 crores for the states public enterprises and after completing ongoing projects and using Rs. 10,500 crores for new projects under various stages of consideration (which add upto an additional Rs. 35,300 crores which are not available) — all this means not only a reduction in the share of the public sector outlay vis a vis that of the private sector but also allowing the private sector to invest in core industries like electricity, steel, chemicals and petro chemicals—calling for liberalisation of investment policies and simplification of procedures. There were serious shortages in production of mining, heavy industry and nuclear energy. In steel though the demand can be met atleast in part by the secondary producers expanding production by 3 million tonnes and the integrated plants by 3.5 to 4 per cent, the nil investment in steel

in the eighth plan will cause a serious supply shortage in the IX Plan, and so rather reluctantly proposes that either the Orissa or Karnataka steel plant should be set up. Turning to the hard decisions to be made to safeguard the VIII Plan in view of BOP problem aggravated by the gulf crisis, the following have to be faced : a) impounding all additional DAs, b) reintroducing the compulsory deposit scheme, c) Linking PDS issue prices to procurement prices, d) restructuring PDS to ensure that only the poor are the beneficiaries e) passing onto farmers the increase, in cost of fertilisers due to the oil price hike, f) cutting down imports of products, components, and raw materials related to elitist consumption, g) raising prices of diesel, kerosene and LPG, h) replace use of petroleum products by natural gap (gas instead of naphtha for fertiliser production, j) deferring some projects calling for large outlays like one rank one pension, DA for public sector employees, the Right to Work as a constitutional, right, j) holding down defence spending and all subsidies, k) identify dynamic exports and thrust areas. The reduction of government consumption, food expenditure and subsidies should release Rs. 50,000 crores for the Plan which will enable the realisation of public savings placed at Rs. 90,000 crores by the union and states (Rs. 25,700 crores through extra tax and non tax revenue, additional resource generation of Rs. 14300 crores and the above Rs. 50,000 crores in government expenditure savings). In the power sector as noted earlier some 10,000 to 12,000 MW less is to be created because of the resources crunch and for crude Rs. 24,000 crores are being provided against the Rs. 46,500 crores needed. These are some of the hard decisions to be made. On some of the important sectors, the commission suggests that of the Rs. 32,000 crores earmarked for employment generation, Rs. 30,000 crores should be for rural employment and Rs. 2000 crores for urban. The main job creating avenues are agriculture, irrigation, small industries, construction' and the social services and the informal sector in urban areas. On rural development, it emphasises institutional reform, reduces the role of government and making it a peoples led process and a programme of decentralisation to mobilise all institutional resources at the village level. How these options, decisions and programmes will be finally embodied in the VIII Plan and how far they will be realised, it is too early at this stage even to speculate on.

Prices

Inflation on the basis of the whole sale price index registered in October a 3 point rise at 183.7 on October 7. (Earlier the inadequacy of these indices measuring the real impact of inflation was referred to). For the 12 month period, on point to point basis, the inflation rate worked out to 9.6 point, reaching near the double digit figure referred to in previous issues. Also the major increases occurred in food articles — ragi, rice, wheat, maize, arhar, urad, tea as well as oil seeds and edible oils. RBI reports a sharp increase in currency notes in circulation by Rs. 160.05 crores to Rs. 50455.25 crores during the week ending November 16. Deposits of scheduled commercical banks fell by Rs. 3565.94 crores to Rs 26059 crores. In addition RBI warns commercial banks not to resort to window dressing of account books by inflating their deposits, so that the real level of deposits is not known. The infiationary spiral is yet to reflect the oil price

hike and the Gulf crisis. Its impact is on the landless agricultural labourer and marginal farmer who have no compensatory mechanism to offset the increased cost of food for him and his family. Should there be a periodic (6 month) revision of the minimum wages to take account of this factor ?

Stock Exchange and Union loans

The RBI Governor in November proposed that the government should borrow from the stock market and not use overdrafts with the Reserve Bank to finance its deficits. This makes sense if the government's deficit is a low one and agrees with RBI as the Sukhumoy Chakravarty report IX Finance Commission recommended. (See Vol XVII p 199, Vol XVIII p579 and Vol XX p 241). This also involves as a pre requisite an active bond government market which will be a move towards market clearing interest rates on government securities. But this proposal which involves the public subscribing to treasury bills issued by government will function only if their interest rates are made attractive so that the public is attracted to it. But would this not send the governments' interest rates soaring high and so add to the already heavy non plan deficit of the government ? There is then this discussion of freeing RBI to really control money creation on the one side and the problem of increasing budget deficit — particularly the non plan element. One answer which might seem theoretical at present is budgetary and fiscal discipline but there is no escape from it to keep the economy viable. In November the decision of the Securities and Exchange Board of India (SEBI) to make company board of directors accountable for the accuracy of their unaudited half yearly accounts supersedes the decision of stock exchange authorities to ask companies to explain discrepancies in their half yearly results and penalise those which gave an unsatisfactory answer. The latter was still borne because the stock exchange do not have either clout or tradition to enforce this discipline which also makes insider trading through which the accounts are cooked impossible. So the raid on the offices of 4 brokers by 4 IT Department and the disruption it caused to the market in mid November is a confirmation of this. It has also led to relaxing trading restriction in specified share and jobbing restriction. It remains to be seen how these relaxation will work. Would this also arrest the unhealthy trend of the booming in the secondary market, while there was a 61 per cent fall in shares issued and subscribed in the primary (capital) market in the first 6 months of the year ? This is important to watch. The Union issued in mid November the 3rd tranche of its 4 loans for Rs. 1500 crores gross and Rs. 1367.63 crores net — which totals Rs. 5651.52 crores net borrowing for the year. This is a fourth tranche of Rs. 2216.39 crores to come before March 1991 to reach the budget borrowing total. Will the government keep within this budgeted total, given the pressures for resources that it faces ?

Economy

The review of the economy at this mid year point by the Economic Times indicates a positive trend in the agricultural sector where there are prospects of a bumper crop following the good south west monsoon. But this also brings out the point of the heavy dependence of the economy on natural factors. The

other signs are disturbing. In the non food areas, why has credit sunk so low when the industrial growth is expected to be the normal 8 per cent· Is it due to disintermediation, that is the corporate sector relying on the capital market, on mutual funds and on finance companies rather than on the normal reliance on banks for working capital. Does this mean that the power of RBI and the government to central and direct industrial development is being restricted. Another worrying factor is the growing trade gap due to a marked deceleration in exports and the alarming balance of payments deficit resulting in falling international credit standing of the country (experienced by ONGC and IDBI in raising international loans and these are our prime borrowers), falling of the foreign exchange reserves to Rs. 3000 crores sufficient for 3 weeks imports, and forcing the country to resort to the harsh IMF — EFF loan of $5 to $6 billion as the $500 million CFF loan is totally is inadequate. Further, the debt service ratios has passed the danger mark at 30 per cent of export earnings. The price situation is equally disturbing with a double digit inflation threatening the economy. The infrastructure services — power, steel, cement, coal and petrol are all in short supply — all calling for the kind of hard decisions to pull the economy out of its morass referred to earlier. Some particular developments have not improved matters such as the 25 per cent cut on supply of petroleum products with 10 per cent cut on HSD supply which has hindered trade and delivery of goods to the market. The HSD cut has been withdrawn after damaging the economy. In order to meet the trade and BOP deficits, sugar and food grains exports are being undertaken with deleterious effect on domestic supply, heavy subsidy for sugar exports at half the domestic price and serious damage to the major export manufacturers of oxalic acid as their input of sugar has declined. Another minus point is that despite the many anti poverty programme undertaken over the past 10 years, the dependence of the poor on money lenders in view of the absence of banks which are located at 10-20 kms from the village and the non recognition of activist voluntary agencies who are working with poor helping them to save what they can and become self sufficient. This however does not prevent them resorting to the money lender who is readily available to meet their day to day needs, charging on exhobitent 10 per cent interest per month. In this situation, a small palliative would be the planning commission recommendation that subsidised goods should only be for the poor. By the time this is operationalised, the poor will have contracted more debts from the money lender.

Industry

CSO's quick estimate of industrial growth for August is reported at 10.5 per cent and for the first five months, April-August at 12.4 per cent which sets a good industrial scenario for the first half of the year. Against this overall trend, the performance of the core sector is reported to have fallen steeply in September, with power production 9.1 per cent short of the target, coal production 11 per cent, steel 9 4 per cent, cement 6 per cent, crude 17.4 per cent and fertilisers by 3 per cent of their respective targets. What is worrisome is the fall in coal and crude production against the energy crisis facing the economy. The shortfall in power in September is explained by the shortage of coal but that does

not explain the April-September decline of 2.5 per cent. Even coal loading fell by 12 per cent in September with severe effects felt by the users particularly in the south as noted in the last issue. At this point, the analysis of the World Bank which traces the above industrial slow down to its usual formula — of the regulatory, incentive policies and price controls, leading to a sharp decline in price competitiveness in steel and fertilisers particularly and also including manufacturers to adopt certain forms of anti competitive behaviour as pre-emptying applications by competitors for capacity or technology increases. The logic of this analysis in the dismemberment of the public sector and throwing all the sub sectors to private enterprises and competition and scrapping small scale reservations or public sector reservation. The key point of this analysis is that the problem is traced to banning competitive imports where adequate domestic supplies are available without regard to the price level of their availability. This analysis might apply to some sectors like cement and sugar in part where the dual system of production is already in force but seems to have no relevance to the core sector problem of falling growth rate in September which can be traced to decline in labour and capital productivity for which competition is not the answer. A disturbing industrial factor is the spread of sickness in the small scale sector with 1,47,740 units being involved, locking up Rs. 4874 crores at 1986 end. The many reasons for their sickness include shortage of raw materials and credit, lack of managerial talent, production at sub optional levels, inability to stand world competition due to low production — volume and high cost vis a vis their counterparts in Japan, Taiwan, South Korea, limited access of technology, delayed payments of their bills by large units, and above all the looting of the units by the managers. The remedies range from penal action on defaulting managements to technology upgrading, mergers, setting up of export houses for small units, product diversification and sale or closing down of unviable units identified by BIFR. These are all well known, but there is no political will to enforce them. One other issue is the hiking of interest rate from 11.5 per cent to 14.5 per cent in the textile modernisation scheme leading to the question as to whether the Rs. 750 crores schemes should be withdrawn. This would be ill advised at this rime after the 60 per cent modernisation of the spinning sector where 63 per cent of spindles and 82 per cent of looms were identified as outdated by the 1985 textiles policy committee and when both the domestic and export demand for textiles and garments are booming which will be further pushed forward as the price of crude oil rises (due to the gulf crisis) and fashion demands in clothing are for the natural fibres in which India has a comparative advantage over the synthetic which was till recently in fashion.

Public Sector Enterprises

Leaving aside the routine and meaningless report by the Department of Heavy Industry that the 30 units under it recorded a productive increase of 9 per cent in August — routine because this is repeated every month without taking account of the losses suffered by the units and meaningless because it is measured by the value and not volume of production. A more candid report is that several engineering projects in the public sector like Hindustan Cable, the gas turbine project of Maruti Udyog, the

hydraulic seals project of Andrew Yule and a number of projects of CCI — covering over Rs. 500 crores are in jeopardy because the Planning Commission has told them and the Department of Heavy Industries that no funds will be allocated to these projects. The resource crunch is resulting in denying funds to these new projects, which makes sense because funds for maintenance and completion of existing projects are short and need to be given priority in non plan allocation. This kind of resource tightness may be good for the sector in pulling up its production and productivity. There is a question as to whether Government action in tampering the PM's programme of the electronic components industry and allowing imports of raw materials for components which has rather seriously affected the industry was necessary and timely? A good development is the offer of the private sector to buy up sick public sector units put up for sale on the recommendation of the committees of secretaries. Such units include CCI (Cycle Corporation of India) for which a buyer from Calcutta has made an offer. The government needs to examine this offer and make a decision expeditiously to set the stage for disposing off sick public sector units.

National Production Front

Steel

The earlier reference to the steel industry being on a down slide, and falling seriously short of its targets is backed up by details of the serious raw materials shortage — boiler coal, coking coal and iron ore fines that the Vishakpatnam plant faces to a point where even a shut down is being envisaged, the shortfalls on production of hot metal, ingot steel and saleable steel at Bokaro and production of finished steel being atleast half a million tonnes short of the target of 14.3 million tonnes for 1990-91, despite SAIL's press release that its 5 integrated steel plants produced 6 per cent more in April-October 1990 compared to production in the corresponding period of the previous year. (To dress up the data, sometimes the actual production figures are compared with targets, sometimes with that of the previous year). But the most serious development is the complete change in the perspective plan (upto 2005) of steel under which with an investment of Rs. 15000 crores from internal resources and borrowing (with no budget support), crude steel was to be increased from 11.2 million tonnes to 17 million tonnes and saleable steel from the 9.1 million tonnes to 15.2 million tonnes, involving also increased productivity and lower costs. Now in the name of realism and what is called updating of this perspective plan, we are back to square one — with crude steel production in 1994-95 being at the same level as 1989-90 and no talk of modernisation. The only bright spot in this dark and stagnant picture, is the mini steel plant's role which could cover in part the gap between steel production and demand which is around 7 million tonnes and with stagnant production of the integrated plants could double by the end of the IX plan. Hence the provision of reliable power supply and the supply of scrap and sponge iron to the mini steel units is vital to save atleast part of the steel scene. Further another positive development is that the new steel policy allowing private sector companies to set up integrated steel plants upto 1 million tonnes capacity is fetching a good response. Three

application one each from Simple India, Usha Ispat and Industrial Promotion and Investment Corporation of Orissa — have been received by the government for a total capacity of 3 million tonnes. The Orissa unit is joining with the Delhi based private unit, Tindale to set up a joint sector with 3 million tonnes capacity. This will have to be proposed separately.

Crude

The crisis faced in the area of crude oil arises from stagnant (and even falling) domestic production at a time when it should be increasing, and the mounting oil bill because of the increasing imports. Now there are plans set forth by ONGC to raise annual production from Bombay offshore area from the current 22 million tonnes to 30 million tonnes during the VIII Plan, calling for an additional investment of Rs. 10,000 crores. ONGC also reports about its plan to explore for oil and gas in category four basins — that is high risk and high reward basin as at Jabera near Pune where drilling has began and other sites in Central India. Neither of these schemes can bring relief in 1990-91 and even 1991-92, and so it is important that the criminally wasteful strikes as at Assam Refinery should be quickly settled, extraction from the existing production sources should be maximised and oil use should be economised and conserved.

Coal

The coal position — where the decline in production was earlier noted — is gloomy. Coal supply which is vital as the only alternative to the increasingly scare and increasingly costly petroleum products, is being reduced by a combination of natural calamities (floods in the coal mines of Bihar and West Bengal and continuous rains) and by man obstacles — the labour unrest in the Bihar coal mines and the even more serious strike in Singareni. There was also the problem of availability of railway wagons to transport coal. On top of all this there is talk of hiking the price of coal. In this situation, there is no use in Coal India claiming, as it does, that its output and despatch of coal in the first 6 months of 1990-91 was better than last year and that its coal supplies to power and cement plant improved by 4-5 per cent. The proof of the pudding is in the eating. This is a case where figures work faster. For the fact is that a number of industries and thermal stations, particularly in the south and western regions have been crying aloud about the poor coal arrivals. The situation is so bad that as noted earlier the Government is concluding an agreement with Australia to import coal — at a time when there is no foreign exchange available. Coal production and despatch needs urgent attention almost on a war footing.

Edible oil and sugar

Will higher prices ensure that the 1990-91 oil seeds target raised from 172.4 lakh tonnes to 180 lakh tonnes be attained ? For 1989-90 the production is officially estimated at 167.7 lakh tonnes — 10.5 lakh tonnes short of the target. For 1990-91 kharif oil seeds is estimated at 92 lakh tonnes and rabi at 81 lakh tonnes. For 1990-91 this will involve a gap of 13 lakh tonnes between edible oils supply and demand.• Against this background of limited production, soaring domestic oil seeds production and the edible oil import of a substantial amount, the

Government should not have permitted the export of edible oil seeds which is estimated at 50,000 tonnes for this year. Despite the higher procurement prices, production in 1990-91 will not be too much beyond that of the previous year, which means that higher prices alone will not produce a higher output — other elements water supply, quality seeds, fertilisers are equally if not more decisive. The table below set forth data on oil seeds, oil production and availabilities:

Estimated oil seeds production, availability : 1990-91

		Kharif	Rabi	Total	Oil Availability
Groundnut		53	22	75	16.5
Rape Mustard		...	45	45	13.5
Soyabean		20	...	20	2.9
Sesamum		6	2	8	2.5
Sunflower seed		5	3	8	2.5
Safflower seed		...	5	5	1.0
Higher Seed		2	...	2	0.5
Castor Seed		6	...	6	2.4
Lin seed		...	4	4	1.2
Total		92	81	173	43.0
Add :	Solvent extracted oils				2.5
	Cotton seed oil				4.0
	Ricebeen oil				3.5
	Coconut oil				2.0
	Minor oils				1.5
	Total availability of vegetable oils				56.5

Source : Economic Times, November 24, 1990.

On sugar, earlier reference was made to the decision to export 5 lakh tonnes so far as a foreign exchange earner — even though because of low international prices, the exports will have to be subsidised by government. The exports have been greeted by a fall in prices Exports are also an indirect check on excess release of sugar in the open market and could control domestic consumption a little — a point urged by the Bulletin repeatedly. But exports

also means that sugar production has to be increased and if exports are to be a long term commitment, the increase will have to be a continuing one and not fluctuate from year to year as at present. Can the part control system now in operation achieve this ?

Agricultural Production

The agricultural policy document is still under discussion. One of the major issues is whether the policy should provide for specific audit regimes for various facets of the agricultural economy such as capital formation, upgradation of technology, diversification based on the agro climatic zones and sub zones ? The policy will set forth the means of making the volume of credit responsive to farming and rural development. This has implications for rural banking which RBI must take into account. Another issue still hanging fire is the component element of the agricultural price policy, particularly the wage element. The 1991 kharif and 1992 rabi procurement price for wheat which was announced in November is based on the formula of the actual wage paid so that the basis on which it was raised from Rs. 215 per quintal to Rs. 225 per quintal is not known. So too the higher purchase prices for gram (+Rs. 29 per quintal), rape seed/mustard 9=Rs.25 per quintal) are based on elements including the risk element which need to be announced. The policy ofcourse bases itself on the decentralisation of the planning process and the launching of massive rural works programme for massive land and water management. This raises the question of water where the switch from major and medium irrigation works to minor irrigation should be reflected in the policy, as big water projects do not ensure efficiency in water management, resulting in optimum return and yield. In fact a micro water shed project in Karnataka has demonstrated that per acre productivity of ragi can be raised by 40 per cent by the farmers.

Foreign Trade and Balance of Payments

The foreign trade picture is both serious and distressing. It is serious because the trade deficit for the period April-September is placed at Rs. 4264 crores and the ministry warns that present export and import trends could lead to a large trade deficit of Rs. 10,000 crores. It is distressing because the country's foreign exchange reserves have fallen to Rs. 3045 crores which can finance just 3 weeks imports. This has a double result. It has diverted all attention on day to day crisis management, replacing more medium term strategy and policy considerations. Second, it has also forced the government and country to face external borrowing and at this point of time the less onerous terms of borrowing will be the IMF and given the dimension of the country's foreign exchange needs $5 to 6 billion, it will have to be from the extended financing of IMF with its very harsh conditionalities. These conditionalities fall into 3 groups. One is all the measures needed to reduce the fiscal imbalances of the economy, and restore a measure of fiscal balance. This is the country's priority any way calling for sharp reduction in government expenditures particularly on non plan account involving the kind of hard decision set forth in an earlier section. These conditiohalities need not be imposed on us, it should be our own decision. Second is the opening of the economy for the operation of market forces : this again

is a direction in which we have been moving and we can negotiate with the Fund what more and at what pace it has to be done. The third is the most difficult and that is to open the economy to foreign investment and foreign firms. On this there will have to be long, hard and prolonged bargaining because this is against the basic foundation of our economy. Meanwhile the need to push exports despite the gulf shut off, the recession in industrial countries and the contraction in the demand for major export goods like gems and jewellery have to be considered. All this means that the original export target of Rs. 37,000 crores and the revised Rs. 30,000 crores will not be attained. On the import side is a series of decisions. The OGL list is being pruned, the minimum margin on loans for raw material imports are being revised to 50 per cent, RBI has asked commercial banks intially to raise interest on capital goods purchase advances to 18 per cent and later completely to stop financing imports of capital goods. Some of these restrictive import measures have a negative effect on exports. On individual items, the list shows a downward movement. Handicrafts have increased for the 6 month April to September by 15.4 per cent, dyestuff export show a marginal 3 per cent increase in that period, leather exports have risen by 17.3 per cent in rupees and 10.5 per cent in dollars, and one important export item reported is that digitally controlled cold rolling mills have begun to be exported to US.

Aid and loans

A question has been raised whether, in this difficult foreign exchange situation, the VIII Plan Approach to reduce external concessional loans called for aid from 2.5 to 3 per cent of GDP to 1.5 per cent is a right decision. For one thing this reduces the future pressure on amortization in a situation where our external debt is variously computed — Rs. 100,000 crores by our ex-finance minister and $69.7 billion by OECD. In this situation the bilateral loans not only add to our amortization burden but as they require that they be spent for equipment in the lending country, there is a distortion of our priorities and a higher cost involved. The UK grant is really aid and for the year Rs. 360 crores is being granted as programme aid and not tied to any project. The loans from the World Bank ($4 million to ICICI for leather research, Rs. 65 crores for 3 irrigation projects in Madhya Pradesh, $95 million for soft ware industry training, $250 million for textile mills modernisation, Rs. 40 crores for agricultural research) and from the Asian Development Bank ($250 million for the second road project, $60 million for the Power Finance Corporation) though not grants do have a lower rate of interest from LIBOR or commercial loans and have a longer maturity period and so have an element of aid in it. But they are project loans tied as noted above to particular projects. The Power Finance Corporation will also receive a loan of 7500 million Japanese Yen from a consortium of commercial banks and insurance companies in Japan and Hongkong. This is a straight commercial loan.

International

World Economy

There is general agreement among international analysts that the world economy is in for a recession. To

start with IMF, in its latest economic forecast refers to the impact of the rise in crude oil prices and looming economic recession in the United States economy, with a set back to growth in most industrial countries (growing at 2.6 per cent in 1990 and 2 4 per cent in 1991 compared to 3.4 per cent in 1989) and all developing countries. While the US growth will be 1.5 per cent in each year, Germany, Japan will record over 4 per cent growth. The impact of the rising crude oil prices will be lower in industrial countries which have become fuel efficient users. But all developing countries except Asia will experience stagnant or declining growth. Asia led by East Asia will experience 5.6 per cent growth, with Thailand growing at 10 per cent in 1990 and 8 per cent in 1991, South Korea 6-7 per cent, as will Malaysia, Indonesia and Singapore — with inflation at 10 per cent. East Europe will see a contraction of 5.2 per cent. UNIDO joins IMF in forecasting a world slump this year from 3.2 per cent in 1989 to 3.1 per cent in 1990. Developing countries will grow at 3.9 per cent in 1990 and 4.1 per cent 1991. It sees declining conditions in East Europe. It agrees with IMF that Asia will experience growth while Africa and Latin America will experience a continuous economic crisis. A British review of the world economy while agreeing with this sombre picture is of the view that global economic warfare and massive liquidations and absorptions flowing from oil are indicative of growing instability of the world economy which will worsen in the next two years. There is general agreement that the East Asian countries from Thailand to Japan will, however, be comparatively better off. It is against this world economy that national economies like India must function.

IMF

IMF has set up a new emergency relief facility to assist countries hit by higher oil prices and the gulf crisis until the end of the year. This aid will be available relatively quickly. The IMF executive board has expanded and changed the phasing of existing borrowing facilities rather than create a new Fund. Even so, this aid will be available to oil importing countries in the context of "comprehensive adjustment programme". Temporarily till 1991 end, an oil import element is being introduced into the Compensating and Contingency Financing Facility (CCFF). Aid under this facility will be small and limited and to make this dependent on "comprehensive adjustment programme" is for countries like India adding insult to injury.

World Trade and Uruguay round

GATT reports that world trade increased in value terms by 7.5 per cent in 1989 against 14 per cent in 1988. The growth is keeping up in 1990 despite the uncertainities caused by the Gulf crisis it says. IMF estimates that in volume, world trade will increase by 5 5 per cent in 1990 and 1991 against 7.5 per cent in 1988 and 1989, with Asian countries being more seriously affected because of their heavy dependence on the US market, which absorbs one third of exports of Japan, South Korea, Taiwan and Philippines. The protectionist forces in the US and other industrial countries might be strengthened if the Uruguay round ends in a failure seriously affecting multilateral world

trade. While advising against the building up of trade blocks, for the developing countries it recommends that quotas should be replaced by tariffs which will lead to full capacity use under both perfectly and imperfectly competitive conditions and eliminate strategic advantages to oligopolistic firms that arise in quota based trade regimes. However it also suggests that interest rates liberalisation should be gradual if the macro economic environment is unstable as it is in most developing countries and if it adversely affects private sector profitability. This is the heart of the IMF analysis on this issue. On the Uruguay round, which will come to a head in the ministers meeting on December 3-7 in Geneva the prospects are a) a deadlock between the major industrial countries. US on the one hand and EC on the other on the question of farm subsidies, b) issues which concern the developing countries like MFA will be passed by or may be sacrificed by the 2 groups if any compromise is attempted, c) in case of a complete deadlock trade wars will erupt, with US leading, as by its legislation Super 301 it is mandated to take unilateral and bilateral actions against trade partners with whom it is in conflict. The world trade prospects are bleak. In this context, the question should be faced by the developing countries as to whether they should not unite in fighting the unjust trading and economic system being imposed on them by the industrial countries. The group of 15 developing countries which met at Geneva under the chairmanship of the Venezuela foreign minister should now stop pleading and begging but stand up and fight for the rights. They are going to lose anyway — so why not place on the table the real issues.

World Population

The Population Reference Bureau, Washington in a study on world population states that "dramatic changes" have been caused by the family planning movement in India and other developing countries which have succeeded in keeping their birth rates under control. As of 1989, 82 per cent of the third world population lived in such countries resulting in the lowering of fertility rates. India was the first country to adopt family planning followed by Pakistan, Korea, China, Egypt etc. It states that in the 1960s on the average third world women bore more than 6 children but in 1990 this has declined to 3.9. Sterilisation is the most widely used birth control method in these countries. This kind of overall global data hides the basic difference between the real achievement of a country like China and the struggle which is still on for population control in India.

SAARC

The meeting of heads of states and government of the South Asian Association of Regional Cooperation (SAARC) met at the end of November at Mahe and after 3 days discussion adopted to a declaraion a) reaffirming their faith in SAARC, b) called on its members to translate into national legislation the SAARC convention on terrorism, c) agreed to explore the setting up of a fund for financing regional projects, d) agreed to establish a human resources development Centre in Islamabad, a regional tuberculosis centre at Kathmandu and a regional documentation centre in New Delhi, and e) extended visa exemption facilities to heads of national academic institutes. A convention to combat drug trafficking

was signed. India pleaded to expedite efforts to prepare a regional plan on cooperation in trade, industry and manufacture by February 1991, when the next SAARC Summit is to meet in Colombo. SAARC is still in the formative stage and everyone is bending over backward not to shake the recently fashioned infant boat too hard.

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II. Agricultural Development in Tamil Nadu

Paddy and other crops

Farmers have taken full advantage of the plentiful North East monsoon for growing paddy over 20 lakh hectares, millets over 9.3 lakh hectares, pulses over 3.45 lakh hectares, cotton over 1.08 lakh hectares and sugarcane over 1.74 lakh hectares (in which the state has attained a record productivity of 140 tonnes per hectare). Total paddy production looks as if it will be 60 lakh tonnes this year. There are districts where farmers have not received adequate rains. They include North Arcot, (where farmers are relying on the flows in the Palar river and on lift irrigation using their pumpsets), Salem, Dharmapuri and Periyar districts, so that the paddy hectarage by November beginning which is the normal end of the samba season was only about 40-50 per cent of the normal. In districts like North Arcot and Chengai Anna where the farmers rely mainly on lift irrigation, farming has become a continous process with standing paddy crops termed as late sornavari, early samba, late samba, early navarai or thaladi so that the farmers are seen to be continuously ploughing, sowing, transplanting or harvesting. One problem facing these dry farmers in these districts is that the irrigation tanks whose ayacut includes their farms are full only in 10 per cent of the states 6947 tanks, for the others the water in the tanks as of mid November will serve them for 1 month to 3 months. Hence the farmers expect more rains. Farmers in Dindigul—Quaide E Milleth are faced with a serious problem as the over 100 tanks in that district and in their area have only one month's water and so further rains are eagerly awaited. What will also help the farmers in these ayacuts is the removal of encroachments which are choking the supply channels into these tanks. Here the tanks renovation programme (aided by EEC), it is hoped, will reach their tanks. They are also willing to use Jowhar Rozgar Yojana facilities for restoring the supplying channels. Could this work which is so important to the farming community be resumed at any early date.

Research results

Of the 26 research reports recorded in November, five need to be noted in view of the prospects of immediate transfer of the results to the farm. One emanating from the regional research station, Aruppukottai shows that sowing undertaken in broad beds and furrows collects rain water and is used by the crop, which moisture conservation increases crop yield by 12-23 per cent

— a water harvesting development which can be used by dry farmers all over the state. A group of 2 reports from Hyderabad and Dharwad makes available to paddy farmers a high yielding rice variety resistant to bacteria leaf blight IET-8585 and 11 steps to be taken to combat brown leaf spot of rice. A group of reports on groundnut from Vridachalam and ICRISAT, Hyderabad, shows groundnut farmers the 6 steps that have to be taken to control pod rot in it and a high yield groundnut for rabi and cultivation called ICGS-37 made available to them. Two reports from Dharwad and Madurai which would help sugarcane growers are relay cropping of sugarcane in tobacco farms and alleviating early drought in sugar cane through trench planting. A group of 3 reports from Periakulam, Mallapura and Coimbatore deal with the means of combating fruit flies and white flies can be used immediately by melon growing farmers to control melon flies along with the necessary field sanitation; by water melon growers who face the menace of the white fly can control them by setting up yellow sticky traps in the field where bers are grown and those growing ber who face the problem of the fruit fly through periodic pruning and burying of affected branches and use of prescribed dosses of malathron. Finally the results of the reports from IRRI and Annamalai Nagar on the use of azolla and green leaf manure advises that azolla can be used as a good bio-fertiliser and as a protein rich feed for fish, ducks and other poultry and pigs, while the use of green leaf manure, including solid weeds help augment rice production and the residual organic matter content in the soil.

Hill Conservation and Operation Flood

To counter the alarming decline of the eco system and damage to the once beautiful and economically important hill areas, on the recommendation of the Directorate of Town and Country Planning, the Hill Areas Conservation Authority has been established to preserve the eco system of Tamil Nadu western Ghats. In time it should also deal with the damage done to the eastern ghats. This action has been overdue to stop further damage through the various activities in the hill areas such as vegetable cultivation, live stock breeding, dairy development, repatriates rehabilitation, and tourism. The Authority has been set up a little too late and so it has to begin work at once and move fast in both its regulatory and monitoring role of the activities there — particularly agricultural, industrial, mining and water management, as well the banning of some like crude oil refineries, thermal power stations and some chemical plants and development of bio-system and bio-reserves. Operation Flood III has started in other states and is unfortunately delayed in Tamil Nadu owing to some procedural and institutional problems. Now the Rs. 68 crore programme of new dairies and chilling plants will have to be completed before the next year in order to double the present handling capacity of 12.5 litres of milk factories in 13 districts and metro dairies plus the 30 tonne milk powder plant at Erode. This occasion should be used to deal with the bottlenecks faced by dairy farmers in some districts who are not able to sell their milk because the infrastructural facilities are inadequate. There should be no more foot dragging on this important project. There is currently an added problem of the government having raised the procurement price of

milk (which benefits milch animal owners) leaving the question of the means of financing it often.

Plantation crops

The plantation crops, five of which are dealt with in this sector raise a number of issues which demand early attention. One common problem that all of them face is the place of the *domestic market* in the disposal of output. In the case of tea, the domestic market consumes 70 per cent of production and is constantly increasing : in coffee only 30 per cent of the annual production of 120 to 215 thousand tonnes is consumed in the domestic market and demand is that this be increased, as the export quota for the country by ICO is only 60,000 tonnes : in rubber domestic demand is continuously increasing production, results in annual imports of 44000 to 59000 tonnes in the last 5 years. In the case of cardamon, the domestic market is being pushed to compensate for the loss of export markets to Gautemala. Both cardamom and pepper are increasing both in domestic consumption and exports. Thus in the plantation industry the emphasis is on the home market. In the case of *tea*, the rate of production growth is not satisfactory : in 1990 600 million kgs so that the 1995 target of 900 million kgs is far away which shows the vital role of R & D in tea development and so the export of 220 million kg. is also far from the 1995 target of 300 million kg. On exports the industry is not doing well as 65 per cent of tea is sold to one country USSR, the offer of Sri Lanka and Bangladesh to join India in marketing tea is yet to be taken up, the loss of the Kuwait and Iran market has not been compensated by the industry developing new markets. While in the case of tea, the government and industry are doing everything possible to meet the insatiable home market demand, in the case of *coffee* no progress has been made to expand domestic coffee consumption and the collapse of ICO quotas gives urgency to this problem. The problem for the future is likely to increase as with the high yielding planting material and increasing production area, supply will be increasing. One important issue in the coffee scene, is the question as to whether the coffee board's monopoly marketing should be scrapped and replaced by what the study of IIM Calcutta calls "optional pooling" of coffee, giving the grower a choice between marketing through the Board or other channels. With the collapse of ICO quota, there is a case for this option, which will offer the grower say in the marketing of his products. This gains urgency as the coffee pest, coffee stem borer, is attacking the plants, adding to the worries and costs of the planter. As regards *rubber* despite production rising by 4 to 5 per cent annually, the sharp increase in demand makes the supply short fall serious and explain continuous imports. The objective of self sufficiency will not be attained if only natural rubber is looked at in isolation. The plans for increasing rubber cultivation in non traditional areas like Tripura and the North East states comes up against environmental and ecological imperatives. The planting of rubber treas on denuded forest lands in Tripura for instance is challenged, as it is felt that lands should return to its natural forest cover. Rubber producers also face this year a problem with the sharp decline in rubber prices caused by the strike of the telecommunication staff (a problem faced by all producers), and the shortage

of diesel which has reduced the transport of rubber to the user points. This pressure needs to be relieved soon. In the *spices and pepper* area, there were opposing developments. Indian spices exports have been stagnant over the past 3 years at 99,800 tonnes a year worth Rs. 273 crores. The major spices yielding about 1.5 million to 2 million tonnes are cardamom in which as noted earlier the exports are declining and home consumption increasing, pepper in which the rise in domestic price is having a limiting effect on exports and this is likely to be worsened as its production this year will be lower by 40 per cent, the other spices being chillies, ginger, turmeric etc. One issue is whether the global pact on spices exports, called the resource mobilisation export committee set up by the world spices congress meeting in early November in Bangladesh can help in bringing some order in the amorphous area and settle in part some of its severe problems?

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III. Industrial Development in Tamil Nadu

Industrialisation Trends

In November also, as in past months, there were positive as well as negative factors characterising the drive towards industrialisation in the state.

Starting with are the many positive factors which add upto a strong move towards industrialisation. The Union government clearances to set up *3 growth centres* in the districts of Thanjavur, Periyar and Tirunelveli, along side of the launching of the associate sector referred to in the last issue and the *registering of 240 companies* in just 2 months, September and October (30 public limited with a capital base of Rs. 342 lakh and 211 private limited with Rs. 2484.25 lakhs) are a positive first element.

Another issue relates to the *Salem steel* plant where the doubling of its capacity from 32000 tonnes to 65,000 tonnes has once more been affirmed by the SAIL chairman through the installing of a second Sendizmir mill (See Vol XXX p475). But the issue new under discussion is installation of hot rolling mill facilities (instead of importing them from outside or from Durgapur as at present) which raises several issues : a) it involves a competition with the alloy steel plant at Durgapur in West Bengal : b) the cost of such facilities established at last year's rate of exchange was Rs. 500 crores which was approved by the SAIL Board of Directors (see Vol XX 537 p109) but is yet to go through other procedures including the cabinet approval for project sanction : c) the establishment of this facility will create excess capacity of 150,000 tonnes which even the second sendizmir's product will not absorb, and at a time of a serious resource crunch and foreign exchange scarcity, this seems a luxury. If the Salem plant is not to become an integrated public sector steel plant in accordance with the new policy referred to earlier should the plant be sold to the private sector — these are issues under debate. Even if sold to the private sector, as far as Tamil Nadu industrialisation is concerned,

both the direct and indirect benefits of the Salem plant will be conserved as the private sector plant will continue, at Salem and above all there will not be this interminable delay in starting it.

A positive trend for the industrial future of the state is the setting up of the *office of small software exporters* in the United States which will use ELCOT and computer software units in other states in marketing Indian software products as well as expertise. Similarly TIDCO's tie up for Rs. 350 crores with the UK firm *Tiosaids* will use the abundant ilmanite resources to manufacture titanium dioxide. Also TIDCO's decision to disinvest its 26 per cent state in *Pantasia Chemicals*, which the private firm Asian Paints is taking over is in line with the policy advocated by the government and TIDCO not itself engaging to industrial operation.

Another plus point is the scheme by *Madras Fertilisers* for Rs. 313 crores submitted to the Union Government to extend its life by 15 years. During this period it will also increase its capacity by 40 per cent, reduce its energy consumption by 41 per cent which means that it will be like a new plant at a lower cost. This is one of the profit making companies and on this basis it has been able to declare a dividend of 15 per cent for 1989-90, despite the government's suspension of P 205 imports and consequent lower NPK fertilisers production.

One of the positive developments is the decision of the well managed private sector *Lakshmi mills*, leading in textiles and fabric manufacturers to enter the readymade garment field in a big way. The focus will be on development of new fabrics for both the domestic and export markets which will involve increased employment and labour and meeting the needs of the middle class customer and not only the elite as Madura Coats, Raymonds, Bombay Dyeing are doing. Other such plus points on industrialisation are the State government's plan to set up a *cell for exports* which will work with small scale units for marketing their products abroad. Similarly the scheme of the newly established Small Industries Development Bank (SIDB) to help the growth of industrial areas. State Industries Development, State Infrastructure Development and other such corporations are to be aided in developing industrial areas exclusively for the SSI sector. Each Industrial unit aided will receive from the bank Rs. 3 crores, keeping the debt equity ratio at 3:1. In this connection, an encouraging development is the conversion of *21 sick SIDCO units* at the industrial estate at Ranipet into finished leather small industries and the further 27 sick units which are in the process of being converted. It is good that the units have joined and started the Ranipet SIDCO Leather Settlement Treatment Company to combat and control pollution of land and water in the area. Similarly the takeover of *Cholamandalam Software* which is a sick unit by Cholamandalam Factory is a positive event as it will turn the sick unit around.

Finally in November *ONGC* reports extending its search for oil and gas in 3 sites with Ramanathapuram sub basin. Seismic surveys have been completed and now drilling must commence.

On the negative side on industrialisation in the state, CEI raises the question whether the *apathy of Tamil Nadu investors* with regard to the capital market, resulting in the slow spread of equity awareness is the cause for the

low tempo of industrial development in the state compared to other states like Maharashtra, Gujarat and Karnataka. CEI cites several examples to support the disturbing hypothesis — Rs. 100 crores only being subscribed to a Rs. 6000 crore venture, a 5 per cent contribution to the Madras based Gremach compared to contribution of 22 per cent to it from Bombay, 22 per cent from Ahmedabad, 10 per cent from Delhi etc. If this hypothesis holds, no industrial subsidies or incentives can push industrialisation in the state. What is needed is a less conservative financial policy and approach by the investing public to exploit the present upsurge in investor awareness to mobilise new resources.

Second, the Madras Bureau of the Financial Express reports that on the basis of data from the Export Import Bank the *Corporate sector* in Tamil Nadu and the South is indifferent to the opportunities in project exports being promoted by World Bank, Asian Development Bank. Out of 50 billion a year average project exports, the South contributes Rs. 12 crores as against Rs. 100 crores for companies outside this area. This data from the Export-Import Bank, of the states in the South not participating in the export effort of the country is traced to our not sending or joining marketing missions which are regularly on the move to contact potential buyers, get to know their requirements and improve export prospects of the company. This is something the Chambers of Commerce and Industry in the state should correct.

Third, there are other negative factors such as the declining order book position of BHEL which is leading to a decline in its order to its auxiliary units and fall in employment, the 700 water logged units in Ambattur estate (which may be temporary) but where the recovery time for getting back to its employment and production level may be anything upto a year the needs of the leather industry, which is doing well, but for the future should study world demand conditions and improve quality, timely deliveries and design initiatives, in which the leather units are lagging, the negative effect on the water scarce state which Tamil Nadu is and the certainly of diversion from food crops which the government policy of expansion of sugar mills will involve (thanks should be expressed atleast for the accompanying policy of the 'no licenses for new sugar factories') and the sales tax policy of the state which shuts out large capital goods companies.

The negative factors are important and are holding back the industrialisation of the state because unlike the positive forces which are long term phenomenon, the negative factors impinges on the scene here and now.

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IV. Education, Science and Health

Educational reforms

The Acharya Ramamurthy Committee has been confirmed by the new government and the new Ministry for Human Resources Development has been told firmly that it must submit its report by December 1990 and that it will have no extension after. This sets an important precedent not only

for education commissions but for all such enquiry committees which have built a tradition of asking for extension to the point where the purpose of the study or enquiry is often forgotten.

Technical education

The Association of Indian universities has proposed that an industrial consortium representing research oriented industries be formed to promote and strengthen linkages between universities/research institutions and industry. It could provide the infrastructure and financial inputs for the research that industries would like universities to do. Actually this goes deeper than what it proposed. In this state for instance a centre has been set up by the Tamil Nadu State Council for Science and Technology for the transfer of technology between universities and industries. Each university may set up a cell to which any industrialist could address his request for technology consultancy or advise and the cell coordinates all the technological research facilities of the different departments and saves the industrialist going from one specialist to another. Similarly industries have established an inventory of their in house research which is made available to the universities and other industries. This information has been computerised and actually is leading to the setting up of a computerised information system on technology transfers. Parallel to this is the plan of the National Institute of Information Technology to set up corporate learning centres in order to help large organisations in the private and public sector to achieve self sufficiency in house training for faster absorption of new technologies and skills in behavioural areas. The centres will administer training organisations on ongoing basis through technology based training resources provided by the National Institute of Information technology and Applied Learning International of the United States. These developments will also help in the renewal of universities and strengthen their interface with industry. Will this also give technology development in industry a more self reliant character ?

Science

Some important developments in the Science & Technology field are reported in November. The special advisor — Industries and the Electronics Secretary, Kerala reports that a software technology park is being set up in Trivandrum along lines of the science parks set up at Tiruchi, Pune and Bangalore. The Trivandrum Park is setting up 100 per cent export oriented software development units. It should guard against falling a victim to the ills of the export oriented units of the country. CLRI reports the development of a new fungal product, clarizyme, that can effectively substitute for the lime and sulphate process now being used for dehairing of leather. Its wide commercial use will also have a social significiance in removing the low social status of the workers in this area. Madras Refineries and Tamil Nadu Energy Development Agency report completing a study on use of compressed Natural Gas to replace petrol and diesel. When approved by the Union Government it will go into commercial operation and relieve the crude oil product shortage following the gulf crisis. The use of this alternative fuel for buses, trucks and taxis is also being planned for Delhi and Bombay and will be a case of technology helping the economy directly and speedily.

Health

The government reports that since 1985 when the Universal Immunisation Programme (UIP) was launched, 8 million children have been protected against 6 diseases responsible for almost 85 per cent morbidity among young. The target set was to cover a minimum of 85 per cent of new born with BCG (against tuberculosis), DPT against diptheria, whooping cough and tetanus and polio and measles vaccine and to cover 100 per cent pregnant mothers with tetanus toxide. This year the target has been reset to cover 100 per cent infants. This rather glaring report is contradicted by surveys of states like UP and Karnataka done by voluntary agencies. Hence it is necessary for the programme to be objectively evaluated. The Union government reports the launching of a massive national Acute Respiratory llness Control programme in 15 selected states to reduce early childhood mortality, which account for 10 per cent of such infant mortality. The programme is being implemented through PHCs and rural health workers are being trained in identifying and dealing with the illness The 14 Central Government Health Scheme (CGHS) dispensaries in Madras report an acute scarcity of drugs prescribed by the doctors. They are asked to buy the drugs from the market which defeats the basic purpose of the scheme which is to serve the employees and their families. This defect is manmade and can be corrected.

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V. Employment and Labour Relations

The Eighth Plan's programme of generating massive employment through its decentralized sector (see Vol XX p 520) awaits the new planning commission decision. In the last week of its existence, the last planning commission allocated Rs. 7000 crores for the entire decentralised sector including small sector, village industries, handicrafts etc. spread over the appropriate administrative ministries. Whether this amount will be adequate for the purpose of generating the jobs was not checked before the commission members resigned. For small scale industries, agro and rural works under the industry ministry Rs. 2640 crores were allocated against the Rs. 10,000 crores requested. Now all this will have to await the finalisation of the VIII Plan by the new Planning Commission. Maharashtra reports a very disturbing labour scenario. First, it reports that the level of employment is declining, while the number of registered factories are increasing. Second, it contradicts the rule of the rote computation that every Rs. 1.5 lakh invested in productive assets creates one job. This is not empirically proved. Against 20,000 registered factories employing 12.25 lakh workers two years ago, the latest data at June 30, 1990 shows that even though 2000 new factories were added, the total number of workers employed declined to 11.40 lakhs. In particular this is explained by the labour department as being due to the fact that the additional capital invested has not been used to employ more workers, but in response to trade union pressure has been used to protect the existing workers income by DAs to compensate

for price increases. And as Bombay has the highest rate of inflation in the country — a rise of 408 points out of 4324 for October 1989, additional investment has been used to pay the workers compensating DAs. How far this explanation is true needs to be tested and analysed, but the problem is real — that is in Bombay even in the — all scale additional investment is not producing additional employment but goes along with declining employment. On conditions of labour, ILO regional office in Delhi states that it is carrying out a study of health hazards of plantation workers resulting from their contact with various chemicals and pesticides used by the planters in their plantations. The socio-economic condition of plantation labour in the North East region — Assam, West Bengal, Tripura is so shockingly bad, that plantation workers from the South who were on a 3 week evaluation visit of the North West Plantations were visibly shocked at their conditions.

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VI. Other Items

State Planning Commission

There were two meeting of the State Planning Commission in November to review the Plan resources position which the change of government and the resignation of the members of the Union Planning Commission called for. At a second meeting, despite the uncertainty, the commission established the 1991-92 Annual Plan on certain assumptions of the resources as pointed out earlier.

World Development Report 1990

The World Bank's annual World Development Report 1990 was discussed at a seminar at the Institute of Financial Management. The report was introduced succinctly by the author from the World Bank. There was general appreciation of the data on poverty on both a country and inter-country basis and there was broad agreement with the conclusions that for economic development in the long run, the use of human capital represented by the labour of the poor and direct beneficiary programmes should all be pursued for reducing the number and impact of poverty. The Bank's bias for the market and for an outward looking economy was criticised as being inapplicable to countries like India. There was also an agreement to reconcile the data on poverty in India given by the report with the data published by the Planning Commission and Government of India on poverty by examining the basis and methodology used by either.

BGVS

There were two events in November connected with the Bharath Gyan Vigyan Jatha. November 14 was the date when the Jatha (over 1500 of them) all over India were concluded. The Jatha organised by the Madras unit in the Pachiappa's College slum — was well attended by the local population and the Jatha got its message across of the importance of literacy to the people. The second event was the meeting of the Executive Committee of the Bharath Gyan Vigyan

Samithi in Delhi, when the work in all the 22 states were reviewed and the next steps to follow up the Jathas with actual literacy teaching programmes were agreed upon.

International Seminar on Literacy and Development

To commemorate Dr. Adiseshiah's 80th birthday, the Government of India gave the India International Centre Rs. 1 lakh to organise an international seminar on literacy and development to which some 15 foreign experts were invited. The seminar reviewed the present status of illiteracy in each country and the problems faced by the literacy programmes in them. It examined the problems of population and literacy, gender and class discriminations and literacy and the economic foundation and implication for illiteracy. The conclusions are being presented to Unesco and Government of India to help in the further development of literacy. The President of India entertained the members to tea and reviewed the work of the seminar.

Literacy Broadcast

As a follow up of the World Literacy Day, AIR had a round table discussion on the state of literacy in Tamil nadu and India. The defects of the programmes involving the problems of motivation and relation to the living problems of the illiterate were highlighted together with the means of correcting them.

TNSC S & T

The Tamil Nadu State Council of Science and Technology organised two important events in November. The first was the meeting of the Governing Council of the Centre for the transfer of technology which brings together business leaders, banks which finance technology transfer and universities. The state of the programme was reviewed and it was decided to run seminars in Tiruchi and Madurai to bring the industrialists and universities together to agree upon the means of transferring technology from the universities to industry. It was also decided to launch on an experimental basis a Newsletter which will give information of facilities in universities and the inhouse research programmes of industries. A computerised listing of the programme is being made available to both. The second event was a seminar on land use which brought together the university specialists on coastal ecology and remote sensing and the use of this data by the departments agriculture, irrigation, town and country planning and forestry. As a result of the review, it was decided to recommend to the government to set up a coastal area davelopment authority which will use the data being produced by the universities on ocean life, coastal ecology, ground water resource shown by remote sensing, to improve and increase the inter-action between producers of the information and the users.

Mid Year Review of the Economy

There was a National Seminar on the Mid Year Review of the Economy 1990-91 organised by the Economic Affairs Group of the India International Centre. The document on the Review set forth comprehensively the trend of the various facets of the economy and the extent to which these forecasts were being overtaken by the Gulf crisis. It

was agreed that the problem of fiscal imbalance, balance of payments and trade deficits, exhaustion of the country's foreign exchange reserves, the mounting foreign debt and the inflationary spiral were the major problems that need attention and control.

SRC and TNBCE

There was the meeting of the new Governing Body of the State Resource Centre set up after the elections of the new executive committee of the Tamil Nadu Board of Continuing Education. The Governing Council reviewed the follow up of the recommendations addressed to it by the Triennial Conferance and decided to pass in review the follow up actions at every one of its sessions. It reviewed the large volume of work for promotion of literacy — in training and material production — of the Centre during the two months since the last meeting of the council and gave some guidance for future activities. The Executive Committee of TNBCE welcomed the new members and took note of the transfer of responsibilities from the old to the new committee. It also reviewed the state and progress on the construction of the Board's permanent headquarters. It agreed upon the regional meeting to be held this year.

December Development Seminar

The Paper for the December Seminar, (Draught Animal Technology in Tamil Nadu) by Dr. R. Prabhakaran together with a summary of the discussion of the seminar appears as the first article.

Second Article

A note on Some Aspects of Rural Development set forth in the Approach Paper for the Eighth Plan appears as the Second Article.

MIDS News

Dr. S. Neelakantan delivered the inaugural address on 13th December at the Ecofest in Loyola College, Madras on the theme "Tamilnadu Economy and Eighth Five Year Plan".

He also participated in Ecotimes '90 at DDGD Vaishnava College and delivered a lecture on "Evaluation of economic ideas — A relativist exposition" on 14th December.

He attended 73rd Annual Conference of the Indian Economic Association and presented a lead paper on "Alfred Marshall's principles of economics : A Centennial Appraisal" on 28th December, 1990 at University of Bihar, Muzaffarpur.

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Dr. P. Radhakrishnan addressed the Rotary Clubs of Ambattur on Mandal Commission and reservations on 18th December, 1990.

He also addressed the faculty and students of the Anthropology Department of Madras University on the same subject on 19th December, 1990.

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Dr. Padmini Swaminathan participated in the IVth National Conference on Womens Movements in India, held at Calicut from 28th - 31st December, 1990 and presented a paper on "Gender and Social Justice : A Critique of Planning in India".

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Dr. Ward Morehouse, President, Council on Internatioual and Public Affairs and Research Associate, Southern Asia Institute, Columbia University, New York, pursuing research on "Environment and Industrial Development in India : The Search for new mechanisms of accommodation" visited the Institute and addressed the faculty and scholars on 19th December, 1990.

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Dr. V. Rajagopalan, Vice President, Policy, Research and External Affairs Division of the World Bank, formally met the Chairman and the Faculty of the Institute and addressed them on 5th January, 1991.

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Dr. A. Vaidyanathan gave a talk on "My Year on the Planning Commission" on 10th January, 1991.

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State of Affairs of Draught Animal Technology — Tamil Nadu (India)

by

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Tamil Nadu is the southern most State in the Indian subcontinent which covers a little over 1,30,000 sq. km., representing about four per cent of India's geographical area. In 1981, Tamil Nadu had a population of 48.41 million, which makes it the seventh largest state in the country and it is one of the most densely populated States in India, with 372 persons per sq. km., compared to All India figure of 221.

Agriculture is the major sector of the State economy. In the State, the contribution of agriculture (including crop, livestock, fisheries and forestry) to the Net State Domestic Product (NSDP) at constant prices, has been undergoing a decline over the years. From 52 percent in 1960-61, it declined to 40 per cent in 1969-70. The decline from 1970-71 to 1981-82 was from 39 to 29 percent. Although, the relative share of agriculture in NSDP has declined, the occupational structure of the working population has not undergone, over the years, any significant transformation. Thus, a vast majority of the population still depend on traditional agriculture.

Tamil Nadu is known for certain specific draught breeds viz., Kangayam, Umbalachery, Punganur, and Alambadi. Unfortunately the breeds are slowly vanishing from the agricultural scenario over the last three decades. Many factors have contributed to the present situation of declining trend in the density of draught animal stock in Tamil Nadu. To name a few, cross breeding with exotic breeds for enhancing milk production, continuous drought (dry spell), widespread mechanisation

in terms of tractorisation and energisation of wells, high cost of feed inputs to maintain draught animal stock, opportunity cost of milk production, social conditions and institutional support for tractorisation have added new dimensions to the issues of proper utilisation of motive power.

The historical evidence shows that though work animal population increased in absolute terms, the density, i.e., work animals on the basis of net sown area remained more or less static at All India level ; while the density of draught animal stock in Tamil Nadu has registered an increasing trend in 1961 and tapered off in the year 1982 and remained at 0.78 animals per hectare of net sown area (Table 1). Interestingly there was a steady increase in the number of tractors from 1961 onwards. Density of tractors per 100 ha of net sown area also registered an increasing trend from 0.01 in 1951 to 0.31 in 1982 (Table 2).

It is intuitively felt, that the density of draught animal stock is bound to decline in the years of draught for want of adequate roughage and employment. It is assumed that if the rainfall is 20 per cent below normal (945.7 cm) it is considered as a year of draught. It was observed that in closely related years, i.e., 1980-81 and 1982-83 (Table 3) there were severe droughts which might have forced the farmers to dispose off their draught animal stock.

Even in normal years, on an average animals were employed only for 72 days and remained idle for 293 days. Among the days employed, nearly 59 per cent of the days were utilised for crop production, followed by other than crop production (25.90%), hired out (8.96%), exchange (2.97%) and social or family work (2.88%) in that order (Table 4).

Factors affecting the proper utilisation of draught animal technology :

1. Seasonality in agricultural operations

Agricultural operations in the State, are being highly seasonal and all activities will be hectic in order to complete the various tasks within a given time. Hence, the demand for animals will be high and almost skewed in nature. The preparatory cultivation, levelling and weeding are to be completed approximately within a fortnight. Afterwards, the animals will be mostly lying idle as there is limited scope for utilising them for other purposes. The gravity of the problem is more pronounced after the introduction of light commercial vehicle, tillers and tractors.

2. Maintenance of Draught animals

By and large, the draught animals are fed with agricultural by-products like paddy straw and rice bran which are rich in cellulose and carbohydrate. The animals are seldom fed with balanced ration even to meet the maintenance requirement. This situation is more common in the rural areas. In a typical village, it was observed that only 40% of maintenance requirement was met especially among small farmer category. The animals mostly survive on kitchen waste water (mixture of gram husk, water obtained after boiling rice, remnants of vegetable etc.) and scarce grass available on field bunds.

In the recent years, availability of paddy straw is also precarious since it

TABLE 1

Trend in Draught Animal Population (1951 - 82)

Particulars		1951	1956	1961	1966	1974	1977	1982
Draught animal	India	67.38	70.68	77.99	78.52	80.05	80.63	81.22
Population (10^6)	Tamilnadu	5.44	5.95	6.29	6.17	5.70	5.70	4.25
Draught animal	India	60.81	64.32	70.85	71.17	72.67	72.98	NA
Population - Cattle (10^6)	Tamilnadu	5.03	5.47	5.73	5·60	5.24	5.25	3.95
Draught animal	India	6.56	6.37	7.14	7.35	7.38	7.65	NA
Population - Buffalo (10^6)	Tamilnadu	0.41	0.48	0.56	0.57	0.46	0.45	0.30
NSA (10^6) hectares	India	118.75	126.19	133.20	136.20	139.37	140.23	140.27
	Tamilnadu	5.27	5.78	6.04	6.03	5.91	6.18	5.45
Density of draught animals	India	0.56	0.55	0.59	0.58	0.57	0.58	0.58
per hectare of net sown area	Tamilnadu	1.03	1.03	1.04	1.02	0.96	0.92	0.78

NA = Not Available

NSA = Net Sown Area

Source : Draught animal population : Livestock Censuses of India and Tamilnadu

Net Sown Area : Statistical Abstract (various years), Govt. of India and Govt. of Tamilnadu.

TABLE 2

Agricultural Machinery and Implements in Tamilnadu (1951 - 82)

Particulars	1951	1956	1961	1966	1974	1977	1982
Tractors	241	822	934	3278	7107	8548	16780
Oil engines	14013	29986	36832	42852	234416	276046	205414
Electrical pumps	15104	23997	98481	208485	681205	784643	945371
Ploughs	NA	NA	3429902	3771672	3677359	3639832	3847386
Bullock carts	NA	NA	664544	627768	594873	630527	579631
Density of tractors per 100 hectares of Net Sown Area	Negligible	0.01	0.02	0.05	0.12	0.14	0.31

NA = Not Available

Source : Livestock censuses of various years.

TABLE 3

Rainfall Pattern of Tamil Nadu

(in mm)

Year	Total rainfall	Percentage to Normal
Normal	945.7	100.00
1958-59	708.9	74.96
1959-60	832.5	88.03
1960-61	978.3	103.45
1961-62	867.0	91.68
1962-63	931.5	98.50
1963-64	907.6	95.97
1964-65	859.1	90.84
1965-66	870.9	92.09
1966-67	1152.8	121.90
1967-68	958.8	101.39
1968-69	682.5	72.17
1969-70	1036.7	109.62
1970-71	918.0	97.07
1971-72	968.8	102.44
1972-73	990.7	104.76
1973-74	842.2	89.06
1974-75	647.4	68.46
1975-76	857.2	90.64
1976-77	941.4	99.54
1977-78	1123.7	118.82
1978-79	949.8	100.43
1979-80	1091.3	115.40
1980-81	669.3	70.77
1981-82	956.2	101.11
1982-83	662.6	70.06
1983-84	1221.3	129.14

Source : Statistical Hand Book, 1984, Department of Statistics, Madras.

TABLE 4

Average Employment and Unemployment Per Pair of Draught Animals in Coimbatore District (1984-85 to 1986-87)

(in Bullocks pair days)

Group	Crop production	Other than crop production	Exchange	Social or family work	Hired out	Total Number of days employed	Number of days not worked
I (1 ha)	34 88 (58.02)	12.07 (20.08)	2.67 (4.44)	1.37 (2.28)	9.13 (15.18)	60.12 (100 00)	304.88
II (1-2 ha)	36.63 (57.15)	15.46 (24.12)	2 55 (3.98)	1.64 (2.55)	7.82 (12.20)	64.10 (100.00)	300.90
III (2-4 ha)	43.37 (59.22)	19.32 (26.38)	2.14 (2.92)	1.89 (2.58)	6.51 (8.90)	73 23 (100.00)	291.77
IV (4-6 ha)	46.19 (59.72)	21 73 (28.10)	1.87 (2.42)	2.58 (3.34)	4 97 (6 42)	77.34 (100.00)	287.66
V (6 ha)	52.71 (61.42)	24.85 (28.96)	1.49 (1.74)	2.93 (3.41)	3.84 (4.47)	85.82 (100.00)	279.18
Average	42.76 (59.29)	18.68 (25.90)	2.14 (2.97)	2 08 (2.88)	6 46 (8.96)	72.12 (100 00)	292.88

Figures in parentheses are percentages to the total number of days employed

fetches attractive returns in the neighbouring Kerala State. With the result, the local farmers are deprived of much needed paddy straw atleast to meet a minimum requirement of their cattle. Further, the treatment given to a milch animal is somewhat superior as compared to a work animals, on two counts. One is, the regular income derived from the sale of milk and social value attached to a cow.

3. Tractorisation vs Animal Draught Power

Majority of the farmers in the State prefer to employ tractor, as own or hired, in tilling the soil for very many reasons. The cost of hiring a tractor is almost equal to cost of hiring a pair of bullocks. Even if it is marginally higher, still certain class of farmers favour tractor mainly to cover a larger area within a given

time and most important thing is to avoid confrontation with the person who own draught animals. Added to this, the younger generation in the farming community especially, among large farmers, show preference to tractors so as to keep pace with the technological developments and also to wield power on fellow farmers.

The institutional support is also strong towards tractorisation for obvious reasons. Liberal credit facilities for the purchase of tractors, prompted many progressive farmers to go in for tractorisation.

4. Energisation of wells

Availability of electrical power at a cheaper cost for the agricultural purpose and receding water table in many areas made the farmers to switch over from animal energy to electrical energy in bailing out the water for irrigation.

5. Constraints in the improvement of bullock drawn carts and implements

Concerted efforts are being taken to improve the design of bullock carts in order to increase the efficiency of animals. But attempts made so far met with limited success because of prohibitive cost and lack of promotional efforts. Though the R & D is aimed towards the target group of farmers, the resource endowments of such farmers are very meagre which prevent them in adopting the new technology. Specifically, pneumatic tyre fitted carts are known for easy traction but the cost of investment and replacement of tyres, road conditions and availability of tyres are the limiting factors in the adoption of improved technology. All these things come in the way of modernisation of animal drawn vehicle. Likewise, the implements for ploughing and levelling the land are of traditional type and no appreciable improvements have been made in the existing implements. Above all, subsistance nature of the farming system forces/makes the farmer to keep away from mechanisation.

6. Socio-economic features

The effective utilisation of animal draught power is fraught with certain peculiar problems. The bargaining power of draught animal owner, who does not own land is more in areas where there are lot of opportunities for the person himself to seek employment and in that situation they collectively reduce the hours of cultivation work thereby putting the land owner into task. It is interesting to note that per day bullock labour hours are less in the highly fertile as compared to most dry tracts where the per day bullock labour hours are more for the simple reason that the person who owns bullocks has very limited opportunity for finding employment elsewhere. Because of such peculiar attitude of bullock owners, the farmer who wants his land to be cultivated, seeks help from tractor owners and get things done without any risk.

Thus, the attitude of the person who owns work animals also has a bearing on the utilisation of draught animal technology to a greater extent. In certain cases, the younger generation of farmers does not like to go behind the animals simply because of attitudinal changes in the society.

Inspite of several constraints, draught animal technology still rules high in certain areas of agricultural operation. Fragmentation of land holding, the average size being less than 2 hectare,

warrants the animal energy rather than mechanical energy. Also, if the land area is divided into small plots, it would be difficult for the tractor to move from one area to another area and incidentally the farmers prefer to have bullocks in such situations. Still, thrashing of grains by animals is considered to be superior as compared to tractors.

Though the tractors are fast to cover larger area in a specified time, levelling of the land after ploughing is being done only by animal drawn implements in many areas. It becomes highly essential that animals have to be used at any one point of time in the agricultural operations.

Policy Issues

How best to maintain the draught animal stock during the periods of employment and unemployment? How to motivate the farming community to modernise their practice given the resource endowment? What specific technology is needed by them? What is the missing link between the R & D establishments and the farmer? What sort of institutional support is needed the development of draught animal technology? These are the few simple issues that need to be given a serious thought in harnessing the hidden power of draught animal technology.

Summary of Discussion

The chairman opened the seminar by outlining the importance of draught animals in the livestock economy of the state. He then characterised it as being one of low productivity in terms of milk, meat and draught power. He requested the author to bring up policy measures keeping in mind the linkages between draught animals and other sectors of the economy.

The author began his presentation by giving a brief overview of the change in the orientation of the bovine economy from one of provision of draught power for agriculture to one of provision of milk for human consumption. As a consequence the cross breeding of cattle was taken up in a big way to the deteriment of draught animals.

The author attributed the decline in the importance of draught animals to the mechanisation of agriculture, drought, lower rates of utilisation, high cost of maintainence and the changes in the occupational structure. The author asserted that the introduction of tractors and the energisation of wells has led to a fall in the number of draught animals. He said there is a negative correlation between the density of tractors and the bullock density. This he said is primarily due to the lower cost of hiring in tractors when compared to that of bullocks. As a consequence of the energisation of wells the water table has gone so low that it is not possible to use bullocks for bailing water. Hence the mechanisation of agriculture has led to a drop in the density of work animals.

The fluctuation in rainfall has led to a situation were the farmer is not in a position to maintain work animals as agriculture itself has become too risky. In years of draught there is a great deal of sale of draught animals for slaughter as a result the draught animal population has declined.

Fragmentation of land holdings has led to a drop in utilisation rate of work animals. Quoting the results of a study that the author has conducted in four districts of the state the author said in most parts of the state the number of days a draught animal is used is 30 days. For the rest of

the days the animal is idle. This coupled with the high cost of feed he said led to the neglect of the draught animal. The cost of paddy straw has gone so high that farmers in certain districts such as Ramanathapuram are dependent on the government for supplies. This he attributed to the high price commanded by paddy straw in Kerala. The result is that only 40% of the feed requirement of the draught animal is met. Even this consisted of kitchen waste and roughage available in the village commons.

Changes in the occupational structure in the form of expansion of non agricultural employment has made it expensive for farmers to hire in labour for looking after draught animals, furthurmore the number of labourers with bullocks has declined so sharply that farmers are unable to hire bullocks when they needed them most. This also contributes to the increased use of tractors for soil preparation. In this context the author made a comparison of the use of draught animals in the districts of Ramanathapuram and Kanyakumari. In Ramanathapuram, the author said there is a system of cooperation in the use of bullock labour as the soil in the district is black cotton soil which required heavy ploughing. While in Kanyakumari where the soil is a sandy loam not much draught power is needed therefore the animals are utilised much less. The author then dealt with the problem of improvement of draught powered implements which he said is not cost effective and that such improvements that has been made has not resulted in widespread adoption.

From the points made during his presentation the author raised the following questions for discussion: How best to improve the utilisation of draught animals? What sort of institutional support needs to be given for the development of draught animals? The type of technological innovations that are required to improve draught efficiency? The chairman then opened the paper for discussion.

One participant questioned the claim of the author that the draught animal population has declined. He alleged that the livestock census is an underestimate. If a comparison is made between the estimate provided by the 37th round of the NSS and the livestock census of 1982 one found that there is a 60% differential between the two he said. He then went on to state that studies done in Punjab has shown that tractorisation has not led to a complete elimination of bullocks in fact farms with tractors tended to carry more bullocks as an insurance against breakdown of the tractor during the sowing season. Similarly in the case of energisation of wells it is not clear that it has led to a reduction in draught animals as they found greater usage due to higher intensity of cultivation under conditions of ground water irrigation. He said what is important is that there is no breeding policy with respect to bovines keeping in view the twin requirements of draught power and milk production.

Another participant intervened to say that from his personal observation there has indeed been a decline in the draught animal population owing to mechanisation. He said costs in terms of timely preparation of land and in terms of maintanence of work animals were so high as as to necessitate the use of tractors for the preparation of the soil. The introduction of pumpsets has furthur attentuated the fall in the draught animal population.

Yet another participant observed that the introduction of pumpsets has led to the reduction in the labour use. This was countered on the ground that even if an attempt is made to reverse this trend it would not be possible as the technique for training bullocks for most work is now absent in the villages.

One participant observed that the displacement of bullocks is an inevitable economic process and feld that the plea of the author to develop draught power in the state is uneconomic. This was countered on the ground that tractors only tilled a small proportion of the gross cropped area hence it is in the interests of agriculture that draught power is developed. A strong plea was made by a participant for greater allocation of financial resources to the Department of Animal Husbandry during the 8th five year plan period. The chairman then summed up the discussion saying that there is a need for a fresh look at the orientation of the bovine economy and consequently to review the breeding policy currently adopted in the state.

GEORGE MATHEW

Rural Development in the Approach Paper

Prefatory

Two prefatory comments should be made about the approach of the Eighth Plan Approach Paper.

First, the Approach is rightly set in the form of broad guidelines, standards and policies, leaving it to the states and local level institutions to develop the relevant programmes and appropriate projects. It is hoped that this guidelining, standard setting approach will be maintained in the formulation of the National Plan, which will have to set the financial ceilings - availabilities and sectoral and inter-state distribution-for the Plan, external trade accounts involved in and for the Plan, review and approve the large nation wide projects such as railways, steel and non ferrous metals, crude oil and gas production.

Second, the Approach has moved away from the concentration on numbers, which have had such a fascination for all of us in the past. These numbers relate to the overall growth rate target for the economy, the saving rate, the ICOR, the percentage of families living below the poverty line, the various demographic numbers. These numbers are capable of manipulation and in some cases have been, as in the numbers of persons crossing the so called poverty line ; they are also not ever realised, the gap between the proposed number and actual attainment widening over time ; and they have distracted our attention away from the substance, which is the raising of the peoples living standards (Adiseshiah 1989). The numbers set forth at the end of Approach Paper seem forced, ad-hoc and do not flow from the

*Note by Dr. Malcolm S. Adiseshiah for the Special issue on VIII Plan Draft Approach Paper, Kurushetra, New Delhi, June 18, 1990.

policies and guidelines formulated in the paper.

Decentralisation

As far as rural development is concerned, which is concerned with the growth and improvement of 85 per cent of the country where 75 per cent of its people live, such development cannot be ordered from the national capital through the National Plan, or a department of Rural Development, or that of similar institutions in the capital of the states. It is a function of the planning and related action of local bodies, panchayats, panchyat unions, panchayat councils. Thus the guidelines of the Approach Paper to "transfer a substantial part of the responsibility for planning and execution of economic and social development programmes to elected representative institutions of the local government" is welcome and over due. There are some issues here on which further work is need. First, in addition to the 7 subjects to be transferred proposed in para 7.5 of the Paper, adult literacy should be added to primary education, maternity, child health and family planning should be added to health, and agriculture and allied activities, village industry and anti-poverty programmes should be added. Second, elected local bodies exist only in 6 out of 22 states so that in addition to speeding the process of local elections in the other states, interim arrangements through the block development officer should be made. Third, while such local level planning and administration will ensure growth at the local level, to combine such growth with what the Approach Paper calls an equitable distribution of its benefits there should be land reforms as in West Bengal and Kerala which should precede local elections, so that elected representatives are representatives of the local community in terms of incomes and assets distribution. Fourth, an essential feature of this system is to make available the staff and adequate financial resources to the local body, which in the former case faces resistance from the staff, and in the case of finance faces similar opposition from the state government and the state bureaucracy. This must be faced, by drastically reducing the direct involvement of the state in local level government, the state providing the needed expertise and infrastructure to the local bodies.

Agriculture

Rural development is equivalent, in the main, to the development of food and cash crops and their needed inputs—irrigation, fertiliser, seeds and other research inputs—animal husbandry dairying and poultry farming, fisheries—inland and marine—forestry, and agri and agro industries. The Approach Paper calls, attention to the urgent need to correct the distortion in this major area of rural development introduced by our planning to date, which has, on the one hand, reduced the contribution of this sector to national income from over 50 per cent at the start of the planning process to 29 per cent today, with only marginal reduction from 72 percent in 1972-73 to 65.7 per cent in 1987-88 (according to NSS 27th and 43rd rounds) of the labour force dependent on it. The means of injecting new life into this sector is through a) development of the rain fed areas constituting over 70 per cent of the cultivated area, b) land and water use planning, particularly the development of water sheds and command areas, c) the expansion and improvement of agricultural facilities, d) trying up

laboratory research to the farm and field needs, e) giving equal importance in investment and inputs to market gardening, horticulture, seri-culture, poultry, fishing, dairying and animal husbandry, agro processing and the backward and forward linkages to with the manufactures industries, f) increasing agricultural exports which will also increase the farmers income and g) which in the last analysis depends on agricultural prices where policy should aim at evening out wide fluctuations and provide the needed incentives for adoption and adaptation of modern technology and so increase output and rural capital formation.

Investment in Rural Development

In this manner, to bring agriculture back to being an industry, occupying a central place in the economy, the Approach paper proposes ' that the proportion of development outlays on schemes benefiting the rural population must be significantly raised, the target being 50 per cent". In this proposal to raise rural development outlays to the 50 per cent target, there are several issues that need clarification. First, it is not only the union sector public outlay that is involved, but much more agriculture and rural development generally being states subjects, also the outlay of the states must be taken into account in making the computation. But such states data is available only with a time lag. Second, the outlay in question must be not only that of the government—union and states—but also an increasing share of private sector outlays, particularly gradually, their investment in the 180 million acres of wastelands which is to be brought under cultivation. On this no hard data is available, only guestimates. Third, there must be some agreement on what of the 13 items on which the public sector outlay of the union and states is allocated should be included in computing the 50 per cent target. While some items like agriculture and allied subjects and irrigation belong wholly to the rural development category, there is the problem of agreeing on the percentage of outlay on such items as energy, transportation, communication and even education and health which should be ascribed to rural development. The table below provides a comparative profile of union and states and UTs investment in agriculture and allied activities, irrigation, rural development and village industries over the 7 plan periods.

In the above table the outlays set forth under items 8 to 11 are based on the assumption that 20 per cent of the power outlay is for rural areas, 15 per cent in the case of transport including railways and communication, 66 per cent in education and 60 per cent in health. On this basis, the continuing decline of the union outlay, and the states and UTs outlays (except for the VI & VII Plans) should be noted : as a consequence the total outlay of the country on agriculture and rural activities in the plans is seen to be declining sharply. This is disturbing and explains the approach to agriculture and rural investment in the Approach Paper. In this connection, a Planning Commission study in early 1990, estimat) that the attainment of the 50 per cent target of public sector outlays for rural areas and peoples will require that the share of the states (and UTs) plan on rural activities would have to be raised from the current 59 per cent to 65 per cent, and that of the union sector from the 32 per cent to 35 per cent. It shows that in the VII Plan

TABLE I*

	I Plan 1951–56			II Plan 1956–61			III Plan 1961–66			IV Plan 1969–74			V Plan 1974–79			VI Plan 1980-85			VII Plan 1985–90		
	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total
Agriculture, Forestry, Animal husbandry, Fisheries, Irrigation, Rural Development, Village & Cottage Industries	45924.70,	37595.60,	83520.30,	21790.81,	95120.23,	12461.23,	26380.00,	147552.00,	173942.00,	593.88,	1526.71,	2125.69,	1633.49,	2862.91,	4496.33,	7000.40,	20779.67,	27783.93,	11078.07,	31445.85,	42523.92
ercentage of oove to total utlay	54.92	45.07	45.41	22.38	76.32	25.91	15.16	84.82	21.94	38.84	71.82	13.31	36.32	63.17	11.41	33.62	74.78	28.49	26.01	73.94	23.62

The table shows the declining percentage in the *Union and state UTs public* sector outlay on agriculture and related activities over the 7 plan periods, with some *recovery in the* V Plan, and despite high shares from the states and UTs. The first thing to do is to arrest the declining trend in overall (total) outlays.

Source : Seven Plan Documents

TABLE II *

	I Plan 1951 – 56			II Plan 1956 – 61			III Plan 1961 – 66			IV Plan 1969 – 74			V Plan 1974–79			VI Plan 1980 - 85			VII Plan 1985 – 90		
	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total	Union	States & UTs	Total
1. Agriculture 2. Forestry 1. Animal husbandry Fisheries Irrigation Rural Development Village & Cottage Industries Power Transport & Communication Education Health	62478.88,	53339.98,	115838.76,	64056.67,	123123.20,	188779.24,	60769.40,	212477.35,	273246.75,	1266.82,	2465.88,	3854.40,	2785.27,	5236.20,	8439.76,	11056.76,	26079.65,	37139.72,	22743.60,	40940.28,	63713.88
entage of e to total /	50.31	64.40	55.94	25.00	54.90	39.30	14.91	52.82	33.94	15.16	35.01	24.21	13.19	27.02	21.42	23.19	52.89	38.09	12.82	48.41	35.34

ne table sets forth the Union and UTs Public Sector Outlay on items benefiting the Rural Population

Source : Seven Plan Documents

Rs. 99,521.25 crores were spent on rural activities, out of the total public sector outlay of Rs. 222,169,25 crores, which means 44.8 per cent was spent and this should be raised to 50 per cent. Given the uncertain base on which all the above computations are made and the possible divergences on which and how much under certain items constitute realistic and effective expenditures that benefit rural areas and peoples, these calculations could be pursued mainly, if not solely, as an approximate monitoring check on all outlays, public and private, union and states and UTs, with the corollary that they have to be increased both per se and through diversion of outlays from non rural activities to rural ones. This would be assured by replacing the present production and distribution model by the wage goods model. The priority proposed to be given to ihvestment in agriculture and rural development is a one small step in that direction.

Rural Development, Employment and Poverty Alleviation

Rural Development

Rural development is thus the resultant of a complex of investments and activities starting with investment in agriculture and related activities and going on to land reforms, which comprise land ceilings and their effective and speedy enforcement, distribution of and means for development of the surplus land distributed, comprehensive regularisation of tenancies, minimum wages revisions and enforcement provision of homesteads. Here a good start has been made in the recent 66th constitutional amendment which brings all facets of land reforms under the Ninth schedule, which should counter benami deals and cut short interminable delays, lasting in some cases to over 30 years in land reform settlement. A second aspect of rural development is the speedy enforcement of some crucial elements of what has come to be called the 20 point programme, dealing inter alia with adult illiteracy and rural primary education, access to health facilities to all rural people with special emphasis on a rapid reduction of infant mortality, provision of drinking water to all villages. A third aspect is what has come to be called the integrated rural development and anti-poverty programmes under, which around Rs. 5000 crores have spent annually on various projects called IRDP, NREP, RLEGP now grouped under JRY, DWACRA, TRYSEM, which are all essential relief programmes to meet the problems faced by the unemployed and under employed. These short term relief efforts are needed to meet the needs of the rural poor, for which the fragmentation, leakages, overlaps and planning and management of the programmes from Delhi and/or state capitals are replaced by their being run by local villages or panchayats, who are the only ones who can identify the poor families and ensure that the relief effort reaches them.

Employment

At the heart of the Rural Development effort is the generation of gainful employment — gainful because over 70 per cent of rural employment is under employment, disguised unemployment, mis-employment at sub human incomes.

The table below gives the rates of rural unemployment and under employment as percentage of the labour force.

TABLE III

Rates of Unemployment (% Unemployed to Labour Force) during 1983 and 1987-88 by Sex and residence status

Worker	Year	Rural Male	Female	Total	Urban Male	Female	Total Total	(R&V)
UPS	1983	2.12	1.14	1.91	5.86	6.90	6.04	2.77
	1987-88	2.87	3.52	3.07	6.07	8.77	6.56	3.77
WS	1983	3.72	4.26	3.88	6.69	7.46	6.81	4.51
	1987-88	4.16	4.27	4.19	6.71	8.93	7,12	4.80
DS	1983	7.52	8.98	7.94	9.23	10.99	9.52	8.25
	1987-88	4.58	6.91	5,25	8.79	12.00	9.26	6.09

UPS = Usual Principal Status. A person is considered unemployed according to this concept if he/she was available for but without work for a major part of the year.

WS = Weekly Status. A person is considered unemployed according to this concept if he/she, though being available for work did not have work even for one hour during the reference week.

DS = Daily Status. It is a measure of unemployment in terms of person days of unemployment of all the persons in the labour force during the reference week.

Source : 38th & 43rd round of NSS : Papola 1990

In 1987-88 unemployment in person years was estimated to be 12.43 million (usual principal status), 15.30 million (weekly status) and 18.95 million. One important structural change in the rural labour force brought out in Table III that should be noted is that while it shows that daily status of unemployed labour in person days has declined from 8.25 per cent in 1983 to 6.09 per cent in 1987-88, the percentage of unemployed workers has increased from 2.77 to 3.77 during the period, which shifts the focus from predominant under development to increased open unemployment. (Papola 1990) : Another worrisome structural change in the rural work force is the sharp and steady increase in the casualisation of labour at the cost of the self employed and the wage employed as the table below shows.

TABLE IV

Percentage Distribution of Workers by Category of Employment

	Rural Male	Rural Female	Rural Total	Urban Male	Urban Female	Urban Total	Total (R+U)
Self Employment							
1972-73	65.9	64.5	65.4	39.2	48.4	40.9	61.4
1977-78	62.8	62.1	62.5	40.4	49.5	42.4	59.3
1983	60.4	61.9	61.0	40.9	45.8	41.9	57.3
1987-88	58.6	60.9	59.4	41.6	47.1	42.8	56.3
Salaried Regular Employment							
1972-73	12.1	4.1	9.2	50.7	27.8	46.4	15.3
1977-78	10-6	2.8	7.8	46.4	24.9	41.7	13.2
1983	10.3	2.8	7.5	43.7	25.8	39.9	13.7
1987-88	10.0	3.6	7.7	43.4	27.5	40.2	13.7
Casual Wage Employment							
1972-73	22.0	31.4	25.4	10.1	23.7	12.6	23.3
1977-78	26.7	35.1	29.7	13.2	25.6	15.9	27.5
1983	29.2	35.3	31.5	15.4	28.4	18.2	28.9
1987-88	38.4	31.4	32.8	14.7	25.4	17.0	29.9

Source : 28th, 32nd, 38th & 43rd rounds of NSS : Papola 1990.

The table shows the sharp increase in the casualisation of rural labour as compared to urban labour involving 31 per cent of rural males and 30 per cent of rural females. The need therefore is for full time gainful employment which is the major task of the rural development programme. The need for gainful employment, as pointed out is to counter the growing casualisation of labour and the lowly wages attached to it. Here there is a multi faceted dilemma. The minimum wages for the unorganised rural labour, as pointed out by National Institute of labour and which all the state funded anti poverty programmes follow, varies among the states from Rs. 8.50 to Rs. 12.75 per worker per day. Second, the Institute also points out that even taking the

higher rate which works out to Rs. 3600 per annum, the poverty line having been officially established at Rs. 6400 per annum, it means that in all states, except Kerala, the minimum wages force the rural workers and his family to live in poverty. What is worse, as further pointed out by the Institute, that even these low minimum wages are not paid in any state (except Kerala), that records and registers that are required to be maintained are not maintained, and that the actual wages paid and other payments in kind average about 50 per cent of what is legislated. Here what is needed is for the National Commission on Rural Labour which has been reorganised in May 1990, to help implement the minimum wages legislation by the states as suggested by the 1986 labour ministers conference, which also requires that the wages be reviewed every 2 years, in light of the rising cost of living.

The Approach Paper sets a target of 3 per cent annual rate of increasing employment over the Eight and Ninth Plan on the assumption that the labour force will be increasing at over 2 per cent. This target has to be broken down between the 12/13 areas of rural development set forth in tables 1 and 2. An attempt is made to do this in the table below.

TABLE V

Growth and Structure of Rural Employment

	1972-73 to 1977-78	1977-78 to 1983	1983 to 1987	1972-73 to 1987-88	Structure: percent of total rural employment in 1987-88
	(growth rate per annum)				
Agriculture	1.96	1 27	0.39	1.1	78.01
Mining & Quarrying	5.83	4.94	5.56	5.41	0.59
Manufacturing	5.89	3.19	2.84	3.95	7.34
Electricity, Gas and Water	15.71	3.59	5·36	7.90	0.17
Construction	1.52	6.26	17.91	8.09	3.37
Trade	8.75	2.67	4.74	5.25	4.09
Transport	7.14	7.10	55.56	6.64	1.32
Services	4.45	3.39	2.06	3.32	5.11
Total	2.53	1.68	1.00	1.75	100.00

Source: NSSO Rates and Population Projections of the Expert Committee on Population Projection: Papola (June 1990).

As manufactures generate employment at 3.6 per cent per annum during 1972-73 to 1987-88, of which 80 per cent is due to village and small industries, a much lower rate of employment, it is agriculture and allied activities and village and small industries which will have to generate a higher rate (say 5-6 per cent) of employment, which can be done if the detailed local plans are provided the technology and inputs to attain both efficiency and higher output.

In the employment area, there is also the need to provide for those in the 1st two bottom declines who are and will never be covered by any of the employment generating or poverty alleviation programmes. For them, a targeted social security system is needed which will help rehabilitate the handicapped, widows and orphans, create maintain a rather wide old age pension scheme and the extension of life insurance for the poor, with a subsidy from the union and state governments as a means of survival benefits. (Guhan 1985).

It is these various facets of employment generation and poverty alleviation — of generating employment at an annual average of 3 per cent with agriculture and VIs at 5 to 6 per cent, of enforcing a viable revised minimum needs programme and of launching a targeted social security system — that are incorporated in the Right to Work as set forth in the Approach Paper. That the right is also financially feasible and viable has been established in the article set forth in Kurukshetra Vol. XXXVIII No. 6 March 1990 (Adiseshiah 1990). The fiscal measures proposed by the Approach Paper begins with the results of the reorientation of rural development in bringing about a more efficient use of available resources and goes on to list the raising of productivity of fertiliser in agriculture, the urgency of energy conservation, on to improving tax administration and arresting the deterioration of the revenue budget. These generalities are sound and good, but they miss out the specifics which can begin to set right the fiscal imbalance — namely annual percentage reduction in a) the swollen staff of the union and states governments during the Plan period, b) the specific amounts in defence wastages, and c) bourgeosing subsidiaries. These will also contribute to the financing of the top priority of the Eighth Plan — which is the Right to Work, as the key to Rural Development.

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